REMARKS

The present remarks are in response to the Office Action entered in the above-identified application and mailed on April 4, 2003. Claim 1-12 are pending in the application, all have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Number 6,385,647 to Willis et al. Applicants respectfully traverse.

It is well understood that in order for a claim to be anticipated under 35 U.S.C. §102(e), every element of the claim must be disclosed in a single prior art reference. In the present case, Willis et al. fails to disclose every element of the invention as presently claimed. Accordingly, the claims are allowable over the Willis et al. reference and the rejection should be withdrawn.

Claim 1 of the instant application calls for a communication method on the Internet using a uni-directional communication line. A first step in the method involves setting a route for an IP datagram to be transmitted to the uni-directional communication line at the transmitting side of the uni-directional line. The second step involves setting another route (i.e., another data path) from the receiving side of the uni-directional communication line back to the transmitting side, thus making communication bi-directional therebetween. The "virtual communication route" back from the receiving side to the transmitting side is necessary due to the uni-directional nature of the communication line. Without establishing the virtual communication route back to the transmitting side of the uni-directional communication line, there is no mechanism by which data may be sent back in the reverse direction.

Independent claim 3 calls for a communication apparatus having first and second interfaces to carry out functions similar to those described above, namely a first interface for receiving an IP datagram to be transmitted over a uni-directional communication line and a second interface for realizing a virtual communication route from the receiving side of the uni-directional communication line, all for carrying out bi-directional communication.

The features of independent claims 1 and 3 are not disclosed by Willis et al. According to the Examiner, Willis et al. teaches setting a route for receiving IP datagrams to be transmitted to the communication line at the side for the transmitting data to the communication line at Col. 18, lines 15-25. Further, the Examiner states that Willis et al. discloses setting another route for

realizing a virtual communication route from the receiving side to the transmitting side of the uni-directional communication line, for carrying out bi-directional communication, at Col. 20, lines 1-15, and in FIG. 15. However, the cited passages and FIG. 15 teach no such things. First, Col. 18, lines 15-25 is devoted entirely to a discussion of fragmentation, the process of breaking down large IP packets into the original IP datagrams. Nowhere in this discussion does Willis et al. describe setting a route for an IP datagram to be transmitted to a uni-directional communication line, as alleged by the Examiner.

The second passage, Col. 20, lines 1-15, is even less relevant to the claimed invention. This passage includes a typical closing paragraph that states that the invention described in the specification can be modified without departing from the spirit and scope of the invention. The cited passage also includes the preamble and first two elements of the first independent claim. This claim calls for a method for media communication over a network, and includes the steps of receiving data from a source computer destined for one or more destinations, and selectively routing data via either a network that supports IP or via a satellite transmission network based on a size of the data.

While this last passage does describe sending data via a satellite or via a network, it does not teach establishing a second "virtual communication route" back from the data receiving side of a uni-directional communication line to the transmitting side. Thus, the reference fails to disclose all the elements of claim 1 and the claim should be allowed.

The same argument applies to the patentability of claim 3. Furthermore, with regard to claim 3, the Examiner points to Col. 30, lines 30-50. Applicants note that the Willis et al. specification includes only 22 columns.

Turning to the rejection of claim 5, the form of claim 5 has been amended, but the subject matter remains unchanged. The Examiner states that Willis et al. discloses all of the features of claim 5. The Examiner simply restates claim 5 and refers to Willis et al., Col. 19, lines 1-20. The cited passage relates to FIG. 15 of the disclosure, and describes a single, uni-directional data transmission from a content provider 1500 to a destination computer 1520. The data is routed either through the Internet or a sub-network that includes a satellite link. The cited passage

teaches nothing regarding data communication over a bridge type transmitting means for transmitting data to a first uni-directional communication line, and connecting a second communication line capable of bi-directional communication to the bridge type transmitting means, to virtually carry out bi-directional communication over the first communication line. Accordingly, since Willis et al. does not teach every element of claim 5, claim 5 is not anticipated and should be allowed.

Finally, addressing the rejection of claim 9 (the last remaining independent claim pending in the application), the Examiner again merely recites the language of the claim and identifies a short passage from the Willis et al. specification, namely Col. 18, lines 1-35. Again, as with claim 5, the form of claim 9 has been slightly modified, but the content of the claims has been left unchanged. Claim 9 calls for, among other things, a bridge type transmitting means for transmitting data to a first uni-directional communication line, and an interface connected to a second bi-directional communication line. A control means determines the destination of packets input through a predetermined interface and determines which network the packets are transferred to in accordance with the determined destination. These features are not taught in Col. 18, lines 1-35 of Willis et al. as has already been discussed in depth with regard to claim 1 and 3. This portion of the Willis et al. disclosure merely describes the fragmentation, re-assembly and routing of datagrams. It teaches nothing regarding a bridge type transmitting means for transmitting data over a first uni-directional communication line, an interface connected to a second, bi-directional, communication line, and a controller for determining on which network a packet is to be transferred based on its destination. Since these features of claim 9 are not disclosed by Willis et al., claim 9 is not anticipated and should be allowed.

Since all of the independent claims are allowable, the dependent claims should be allowed for similar reasons.
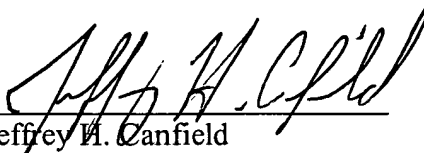
For these reasons, Applicant respectfully submits that the claims as presently amended are all in condition for allowance. Applicant therefore requests that the Examiner allow the claims move the application to issue. However, if there are any remaining issues the Examiner is encourage to call Applicants' attorney, Jeffrey H. Canfield at (312) 807-4233 in order to facilitate a speedy disposition of the present case.

If any additional fees are required in connection with this response they may be charged to deposit account no. 02-1818.

Respectfully submitted,

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Date: July 14, 2003